

Appl. No. 10/064,412
Amdt. dated March 10, 2005
Reply to Office action of December 15, 2004

REMARKS

1. Amendments to the claims:

5 Claims 2 and 13 are amended only to correct grammatical errors.

2. Claim objection (computer generated method):

10 The scope of the claims, as established by the term "CD-MRW", implies that an electronic device is to perform the method. The applicant does not wish to limit the invention to being performed by a computer, since other devices that are not normally called computers also apply, e.g. a CD player, a CD-ROM drive, etc.

15 The applicant respectfully requests clarification or withdrawal of this objection.

20 3. Rejection of claims 1, 2, 6, 7, 8, 9, 11, 12, 13, 14, and 15 under 35 U.S.C. 102(e) as being anticipated by Park (US 6,493,301):

Regarding claim 1:

25 Col. 1, lines 36-42, of Park concern the so-called user (or data) and spare areas of a typical optical disc. The rejection is not specific, and furthermore, claim 1 does not concern user areas or spare areas. If the Examiner is regarding the sub-ranges of claim 1 as user and/or spare areas, the applicant refers the

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Examiner to the following.

Col. 5, lines 8-16, of Park concern determining the capacity of the recording medium (also, step 401 of Fig.4). In this section,
5 Park teaches "the initial recording capacity of an optical recording medium is first determined..."

In contrast, claim 1 recites

- 10 (a) obtaining data to be written to a CD-MRW substrate;
(b) determining a write packet range of the data;

Clearly, claim 1 is limited to determining the write packet range of data to be written, rather than determining the size of the
15 recording medium. For example, where Park may teach determining that a CD has 650 MB of space available to receive data, steps (a) and (b) of claim 1 express determining that data ranging from packets 1-100 are to be written to a CD. Determining the size of a medium and determining the range of data to be written to
20 a medium are entirely different.

And this is not a trivial difference. For one thing, the invention of claim 1 requires that the range of data to be written is examined for defect blocks and split accordingly before writing
25 is begun. This can be regarded as part of a kind of pre-analysis of the range to be written. Determining the range of the data (step b) is critical to the remaining steps.

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Referring to the remaining steps of claim 1:

- (c) identifying any defect blocks in the write packet range;
 - (d) identifying breakpoints in the write packet range based
5 on the defect blocks;
 - (e) splitting the write packet range into at least two
sub-ranges based on the breakpoints; and
 - (f) individually writing each sub-range.
- 10 Examining the steps in reverse, the sub-ranges cannot be written
before they are split. The split cannot be made without the
breakpoints, which are defect blocks. And the breakpoints cannot
be identified without first determining the write packet range.
Therefore, there is at least one explicit sequence to the steps
15 of claim 1. This is why step (b) can be considered to be part
of a pre-analysis (steps a-e) that are necessarily performed
before the writing step (f).

Since the Examiner has not specifically identified which
20 elements of Park correspond to which steps of claim 1, the
applicant is forced to interpret the rejection to mean that claim
1 is so broad that it reads on fundamental CD writing operations.
While an individual step of claim 1, when taken alone, may read
on Park, the steps taken together are inherently constrained to
25 particular sequence(s) and are not taught or suggested by Park.

Therefore, the applicant argues that Park does not teach the steps
of claim 1, and further, does not teach the inherent sequence(s)

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of these steps.

Regarding claim 7:

5 Park does not teach or suggest

identifying the breakpoints based on the SAs in the write
packet range

10 as recited in claim 7. The Examiner may arbitrarily interpret
"breakpoints", however, steps (e) and (f) of the base claim 1
give specific meaning to the term "breakpoints":

15 (e) splitting the write packet range into at least two
sub-ranges based on the breakpoints; and
(f) individually writing each sub-range.

Nowhere does Park teach or suggest splitting a packet range about
a spare area and then writing to the split ranges.

20

Regarding claims 8, 9, and 11:

The applicant asserts that the Examiner is arbitrarily
interpreting the term "breakpoints". This term has a specific
25 meaning when the claim is considered as a whole. Refer to the
argument for claim 7 above.

Regarding claims 12:

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Col. 2, lines 16-24, and Fig.2A & 2B of Park describe reading from a spare area when a defect block is encountered.

5 Similar to claim 1, Park does not teach or suggest

(a) determining a read block range of the data;

10 in advance of the subsequent steps (b)-(e) (these steps are subsequent in that they require the range). Again, this is not a trivial difference. That is, where Park teaches a piecewise reading/writing of blocks and teaches making decisions based on the instantaneous state of the reading/writing, the steps of claim 12 require a kind of pre-analysis as explicitly called for
15 in step (a). Please also refer to the argument for claim 1.

Summary:

20 The steps of claim 1 and 12 are interlinked in such a way that the range-determination steps (b) of claim 1 and (a) of claim 12 impart a meaning to the subsequent steps that is significantly different from the state of the art as taught by Park. Moreover, the subsequent steps of both claims 1 and 12 are interlinked so as to require a specific order of execution, an attribute that
25 the applicant believes the Examiner has overlooked.

Reconsideration of claims 1, 2, 6, 7, 8, 9, 11, 12, 13, 14, and 15 is respectfully requested in view of the above arguments.

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Claims 2, 6, 7, 8, 9, 11, 13, 14, and 15 are dependent and should be allowed if claims 1 and 12 are allowed.

4. Rejection of claims 3, 5, and 10 under 35 U.S.C. 103(a) as
5 being unpatentable over Park as applied to claims 1 and 2 above,
and further in view of Charnell et al. (US 2002/0029357):

Claims 3, 5, and 10 are dependent on claim 1. The applicant has argued that the Park reference does not anticipate claim 1.
10 Therefore, the combination of Park and Charnell does not render claims 3, 5, and 10 obvious.

The applicant respectfully requests reconsideration of claims 3, 5, and 10, which should be allowed if claim 1 is allowed.
15

5. Rejection of claim 4 under 35 U.S.C. 103(a) as being
unpatentable over Park and Charnell as applied to claim 3 above,
and further in view of Hashimoto (US 6,108,289):

20 Claims 4 are dependent on claim 3.

The applicant respectfully requests reconsideration of claim 4, which should be allowed if claim 3 is allowed.

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Sincerely yours,

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- 10 Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).